

ABSTRACT OF THE DISCLOSURE

A glass composition consisting essentially by mol percent of about  $55 < \text{SiO}_2 < 75$ ;  $5 < \text{BaO} < 30$ ; and  $2 < \text{MgO} < 22$  for use as a matrix of composite materials. A 5 method of making a glass matrix-ceramic particulate composition useful for sealing electrochemical structures, such as solid oxide fuel cells is also disclosed. Method steps include the admixture of finely divided  $\text{Mg}_2\text{SiO}_4$  particulates with the matrix glass, to 10 reach an overall composition by mol percent of about  $55 < \text{SiO}_2 < 65$ ;  $5 < \text{BaO} < 15$ ; and  $25 < \text{MgO} < 35$ .

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